What is claimed is:

1. A virtual subnet controlling method, which utilizes a virtual subnet controller to connect a public network and a private network including at least one subnet, the method comprising the steps of:

broadcasting an ARP request by a first station;

responding an ARP response by a second station if the second station is the destination station of the ARP request and is located at the same subnet as the first station;

responding an ARP response by the virtual subnet controller;

transmitting data packets from the first station to the virtual subnet controller; and

transmitting data packets from the virtual subnet controller to the second station.

2. The virtual subnet controlling method of Claim 1, further comprising a step of converting an IP address by a NAT protocol if the destination station is connected to the public network.

3. The virtual subnet controlling method of Claim 1, wherein the virtual subnet controller awaits a time period and then responds with an ARP response to the first station after the second station responds an ARP response to the first station, so as to override the ARP response from the second station to the first station.

4. The virtual subnet controlling method of Claim 1, wherein the the first station records the ARP response in its ARP table when the ARP response is received.

5. A virtual subnet controlling method, which utilizes a virtual subnet controller to connect a public network and a private network

including at least one subnet, the method comprising the steps of:

updating the destination of data packets in an ARP table of a source station as the IP address of the virtual subnet controller;

transmitting the data packets from the source station to the virtual subnet controller; and

transmitting the data packets from the virtual subnet controller to the destination station.

6. The virtual subnet controlling method of Claim 5, further comprising a step of converting an IP address by a NAT protocol if the destination station is connected to the public network.

7. A virtual subnet controller, connected to a public network and a private network including at least one subnet, the virtual subnet controller comprising:

a subnet mapping table, which uses NAT protocol to convert IP addresses of data packets if source and destination stations belong to a public network and a private network, respectively; and

a control unit, which responds with an ARP response and enables the data packets transmitted from the source station to the virtual subnet controller, and then redirects the data packets to the destination station.

8. The virtual subnet controller of Claim 7, wherein the virtual subnet controller awaits a time period and then responds with an ARP response to the source station after the destination station responds with an ARP response to the source station, so as to override the ARP response from the destination station to the source station.